

REMARKS

As a preliminary matter, Applicants thank the Examiner for the allowance of claims 1 and 2, and the acknowledgement of allowable subject matter in claim 8

Claim 5 stands rejected under 35 U.S.C. 102(b) as being anticipated by Kashimoto et al. (U.S. 5,844,645). Applicants respectfully traverse this rejection because the cited reference does not disclose (or suggest) a black matrix picture-frame, or a frame-shape structure separating the main seal from the liquid crystal, as in claim 5 of the present invention, as amended.

Kashimoto discloses in FIGS. 3 and 5 a color liquid crystal display (“LCD”) device having two substrates 10, 20 sandwiching a liquid crystal 50. The Examiner has correctly identified that Kashimoto also discloses a sealing material 40 that attaches the two substrates 10, 20 and that the R-colored layer 23B and B-colored 25B are frame-shaped structures formed between the sealing material 40 and the display area of Kashimoto’s device. The Examiner is not correct, however, in asserting that the light shield layer 26 of Kashimoto is a black matrix picture-frame. (Page 3). Kashimoto specifically identifies the light shield layer 26 as a separate element from the black matrix lines 22, which are neither formed in a picture frame shape, nor are they formed between the display area and sealing material 40.

In contrast, claim 5 of the present invention recites, among other things, a black matrix picture-frame shading an area between the main seal and the display area. As

discussed above, Kashimoto discloses no such equivalent structure. The light shield layer 26 identified by the Examiner is not the black matrix element 22 that is separately disclosed by Kashimoto. Kashimoto's black matrix element 22 is neither a picture frame, nor located between a main seal and the display area. Accordingly, for at least these reasons, the Section 102 rejection of claim 5 based on Kashimoto is respectfully traversed.

Additionally, Applicants traverse the rejection of claim 5 because Kashimoto neither teaches nor suggests that an external peripheral end of either of the structures 23B, 25B coincides with a peripheral end of the black matrix element 22, as erroneously asserted by the Examiner (page 3 of Paper No. 0104). Fig. 5 of Kashimoto clearly illustrates that the element 22 is formed entirely separate from the layers 23B and 25B. No portions of these elements are shown to touch, abut, overlap, or coincide with one another. The Examiner's assertion to the contrary is therefore not supported by the prior art reference itself, and therefore the Section 102 rejection of claim 5 is also respectfully traversed for at least these additional reasons.

Lastly, Applicants traverse the rejection of claim 5 because neither of the "frame-shape structures" 23B, 25B identified by the Examiner separate the sealing material 40 from the liquid crystal 50. As discussed above, Applicants submit that no further amendments to claim 5 are necessary to establish the patentability of this claim over the Kashimoto reference. However, in the interests of expediting prosecution only, claim 5 has been further amended to clarify that the recited frame-shape structure separates the main seal

of the present invention from the liquid crystal. Fig 5 of Kashimoto clearly illustrates that the reference neither teaches nor suggests any such feature. Accordingly, for even these further reasons, the rejection of claim 5 is again traversed.

Claims 17-20 stand rejection under 35 U.S.C. 102(b) as being anticipated by Nishiguchi et al. (U.S. 6,226,067). Applicants respectfully traverse as follows.

With respect to claim 17 of the present invention (and its dependent claim 18), Applicants traverse because the cited reference fails to disclose (or suggest) structures for controlling the spreading speed of dropped liquid crystal. Nishiguchi specifically teaches that the structural nodules 3 – which are asserted by the Examiner to be analogous to the recited structures of claim 17 – are provided to *prevent* the flow of liquid crystal material. One skilled in the art will be apprised that a structure provided to prevent the flow of material will not be capable of controlling the *speed* of such flowing material. The liquid crystal material will necessarily have no speed to its spreading flow once that flow is prevented. Accordingly, for at least these reasons, the Section 102 rejection of claims 17-18 of the present invention is respectfully traversed.

With respect to claim 19 of the present invention (and its dependent claim 18), Applicants traverse because the cited reference fails to disclose (or suggest) a gap portion between the sealing material and the convex shape structure for draining excess liquid crystal overflowing from the display area. Nishiguchi specifically teaches that its multilayer sealing structure (Fig. 30) is provided with an opening in the seal 7 as a discharge outlet for liquid

crystal material, when dripping such material on the substrate. (See Col 16, lines 45-46). Accordingly, Nishiguchi specifically teaches away from amended claim 19 of the present invention in this respect, which now features a gap layer between the recited seal and the structure for draining similar excesses of overflowing liquid crystal. An opening in one seal is not the same as an entire gap portion formed between the seal and the convex structure. Accordingly, for at least these reasons, the Section 102 rejection of claim 19 is respectfully traversed.

With respect to claim 20 of the present invention, Applicants traverse the rejection because Nishiguchi fails to disclose (or suggest) any ability of its multilayer structure to function as a suction in an atmosphere. In fact, as discussed above with respect to claim 19, Nishiguchi even teaches away from claim 20. Nishiguchi teaches that openings can be provided in the structures 7 as needed. In other words, the structures 7 do not function to provide a suction in an atmosphere, as in claim 20. The openings taught by Nishiguchi will necessarily destroy any ability of the structures 7 to provide a suction. Accordingly, for at least these reasons, the Section 102 rejection of claim 20 is respectfully traversed.

Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (U.S. 5,739,880), in view of Miyamoto et al. (JP 03-36525), and Hasegawa et al. (JP 09-090383). Applicants respectfully traverse this rejection because none of the cited references, whether taken alone or in combination, disclose or suggest that a light incident hole is opened at a shading film above a transfer, as in claim 4 of the present invention.

The Examiner correctly acknowledges that Suzuki fails to teach or suggest both colored particles, as well as the light incident hole opened at the shading film above the transfer. The Examiner cites Miyamoto only for incorporating color tones into the transfer paste. Only Hasegawa has been cited by the Examiner analogous to the light incident hole of the present invention. As previously discussed, however, Hasegawa fails to teach or suggest the light incident hole in connection with a transfer.

As also previously discussed, and undisputed by the Examiner, Hasegawa fails to teach or suggest anything about transfers at all. Accordingly, none of the three cited references could teach or suggest to form a light incident hole above the transfer specifically, as is expressly recited in claim 4 of the present invention. This specific claim language is an element of the claim itself, and one which the Examiner has not given proper consideration. Accordingly, this Section 103 rejection is deficient on its face.

Section 2143.03 of the MPEP requires of the Examiner, in order to establish a *prima facie* case of obviousness against a claim, to first cite where in the prior art may be found each and every feature and limitation of the claim itself. In the present case, however, the Examiner has not satisfied this burden. The specific location of the light incident hole above the transfer in the present invention is a structural limitation about the formation and configuration of the present invention, and one which the Examiner has not even asserted appears in the prior art.

Even if the light incident hole and transfer identified by the Examiner as analogous to the present invention (which Applicants do not concede) were correct, the Examiner still has not cited to anywhere in the prior art where it is taught or suggested that a light incident hole be placed above the transfer specifically. Accordingly, a *prima facie* case of obviousness has not been established, and this Section 103 rejection must be withdrawn.

Furthermore, the Examiner has failed to establish a motivation for combining the several cited references together to reach the present invention, as is also required. The only motivation suggested by the Examiner for the light incident hole appears in the Abstract of Hasegawa, which merely teaches to provide the hole only to assist in the curing process to glue the substrates together. Hasegawa teaches and suggests nothing about transfers at all.

One skilled in the art is well apprised that transfers are not necessary to adhere one substrate to another in LCD device. In fact, Applicants Admitted Prior Art, which was previously cited by the Examiner, specifically teaches that conventional transfers have no light transmitting holes located above them. The Examiner has not provided any support for his implied proposition that the adhesive for gluing the substrates is somehow interchangeable with the transfer for electrically connecting the substrates. Applicants submit that such a proposition would be, and is, erroneous.

The teaching or suggestion to combine prior art references to show a specific feature of a claim must be objectively discernable within the prior art itself. Otherwise, obviousness cannot be maintained against that claim. See In re Lee, 277 F.3d 1338 (Fed.

Cir. 2002). The Examiner's personal knowledge and understanding are not relevant to such an inquiry. See Id. Accordingly, because no motivation has been asserted by the Examiner for forming a light incident hole above a *transfer* that contains colored particles, the Section 103 rejection cited against claim 4 is even further deficient, and again should be withdrawn.

Lastly, several specific advantages are achieved by a device according to claim 4 of the present invention, advantages which are not realized by any of the three cited references, alone or in combination. These advantages are expressly described in the Specification to the present Application, and undisputed by the Examiner. The Examiner has not even asserted that any of the three cited references could yield the same improved, beneficial results. Accordingly, even if a *prima facie* case of obviousness could be asserted against the present invention in this regard, such a case would be sufficiently rebutted by the clear and undisputed advantages claim 4 of the present invention would yield in practice. Accordingly, for at least these additional reasons as well, the Section 103 rejection of claim 4 should be withdrawn.

Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimoto in view of Anderson et al. (US 6,067,142). Applicants respectfully traverse this rejection for at least the reasons discussed above in traversing the rejection of claim 5 based on Kashimoto alone. Claim 6 depends from independent claim 5, and therefore includes all of the features of the base claim, plus additional features. Anderson is cited only for

alignment films, and not for a black matrix picture-frame. Accordingly, the Section 103 rejection of claim 6 should be withdrawn.

Additionally, the Examiner has apparently failed to consider another feature of claim 6 in asserting the outstanding Section 103 rejection. Claim 6 features an additional limitation that the recited frame-shape structure has a height of substantially half (now broadened to recite “substantially half or more”) of that of a spacer arranged in the display area. As clearly shown by Fig.5 of Kashimoto, on the other hand, each of the layers 23B and 25B have a height considerably less than half of that of the spacers 30. Kashimoto otherwise provides no textual description to contradict Fig. 5’s illustrations. Accordingly, for at least these additional reasons, the rejection of claim 6 should again be withdrawn.

Claim 7 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Kashimoto in view of Nishiguchi. Applicants respectfully traverse this rejection also for reasons similar to those discussed above. Claim 7 depends from independent claim 5. Nishiguchi is cited only for a sealing material having a multiple layer structure, and not for a black matrix picture frame. Accordingly, the Section 103 rejection of claim 7 should also be withdrawn.

Claim 9 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Ishitaka et al. (US 6,233,031) in view of Hasegawa. Applicants respectfully traverse this rejection because neither of the cited references, whether taken alone or in combination,

discloses or suggests the light reflection layer of the present invention being formed only in an area under the sealing material, as in claim 9 of the present invention, as amended.

Ishitaka discloses in FIG. 7 a reflector 24 made up of an overcoat layer 23 and a photosensitive resin layer 21 which sandwich a rippled reflection film 22 therebetween. Ishitaka clearly illustrates that the reflection film 22 is not limited to the area under the sealing member 13, but instead across the entire length of the device. In contrast, claim 9 of the present invention as amended recites, among other things, that the light reflection layer is formed only in an area under the sealing material. Hasegawa has been cited only for teaching that a sealing material may be made of a photo-curing type. Hasegawa otherwise does not teach or suggest how it can be combined with Ishitaka to overcome the fact that Ishitaka now clearly teaches away from amended claim 9 of the present invention. Any reference with teaches away from the claimed invention cannot for a basis for rejection such claims under obviousness. Accordingly, the Section 103 rejection of claim 9 is respectfully traversed.

For all of the foregoing reasons, Applicants submit that this Application, including claims 1-2 and 4-9, and 17-20 is in condition for allowance, which is respectfully requested. The Examiner is invited to contact the undersigned Attorney if an interview would expedite prosecution.

Respectfully submitted,

GREER, BURNS & CRAIN, LTD.

By 

Josh C. Snider

Registration Number 47,954

Customer No. 24978

July 9, 2004

300 South Wacker Drive
Suite 2500
Chicago, Illinois 60606
Telephone: (312) 360-0080
Facsimile: (312) 360-9315
P:\DOCS\1324\64102\598220.DOC